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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,534	08/20/2001	David A. Grilli	TRW(AP)5727	5816

7590 12/03/2002

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EXAMINER

STEFANON, JUSTIN

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

SK

Office Action Summary

Application No.

09/933,534

Applicant(s)

GRILLI ET AL.

Examiner

Justin Stefanon

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed August 20, 2001 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the items listed in the section entitled "Other Documents" are not properly identified. It has been placed in the application file, and the patents listed therein have been considered by the Examiner, but the information referred to in the publications has not been considered as to the merits. Each publication must be identified by publisher, author (if any), title, relevant pages of the publication, and date and place of publication. The date of publication supplied must include at least the month and year of publication, except that the year of publication (without the month) will be accepted if the applicant points out in the information disclosure statement that the year of publication is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the particular month of publication is not in issue.

2. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 29-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 recites the limitations "said first wall portion" in line 12 and "said second wall portion" in line 14. There is insufficient antecedent basis for this limitation in the claim. The phrase "wall portion" should be replaced with --mold wall-- in both instances.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 7, 8, 11-13, 15, 18-22, 24, 27, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat. No. 6,386,579 to Reidy et al.

Reidy et al. disclose a steering wheel with a rim portion 8, a spoke portion 9, and a foamed padding material, adhered to the rim and spoke portions, having a first portion 16 with a substantially uniform cell density and a second portion 15 with a continuous external surface free of interruption by a cell, the padding material comprising a gasified chemical foaming agent and a thermoplastic polyolefin elastomer with a shore A hardness of about 90. The elastomer is disclosed as polypropylene, a plasticizer-free thermoplastic. The foaming agent is inherently either exothermic, endothermic, or a

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mixture thereof, and includes a colorant. The padding material has a first thickness around the rim and a second thickness around the spoke portion. The wheel is manufactured by injection molding; the elastomer and chemical foaming agent are mixed, the mixture foamed, and then adhered to a steering wheel armature 1 to form the foamed padding material. The elastomer is melted to fit the mold.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 5, 6, 13, 14, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reidy et al. in view of US Pat. No. 3,950,838 to Oseroff et al.

Reidy et al. disclose the claimed invention except for the thermoplastic elastomer including another elastomer, or comprising a mixture of EPM, EPDM, and PP. Oseroff et al. disclose that it is known in the art to provide a steering wheel with a foamed padding material comprising thermoplastic elastomer of polypropylene with another elastomer, namely EPM and EPDM. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the polypropylene elastomer mixture of Reidy et al. with the EPM, EPDM, and PP blend of Oseroff et al., as Reidy states, in column 4, lines 21-24, that other thermoplastic elastomers may be used, and Oseroff et al. teach that it is old in the art to use such a blend in a foamed steering wheel padding. The blend of Oseroff provides Shore A hardness of 35-50.

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8. Claims 9, 10, 16, 17, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reidy et al. in view of WIPO Patent Publication WO 99/10419 to Braun et al.

Reidy et al. disclose the claimed invention except for the foaming agent encapsulated within a resin that is essentially the same material as the thermoplastic elastomer. Braun et al. disclose that it is known in the art to provide a impregnated polyolefin granule containing a foaming agent. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the foaming agent of Reidy et al. within a capsule as taught by Braun et al., in order to avoid contamination of waste water, as disclosed by Braun et al. in column 1, lines 32-36.

9. Claims 29-33, 35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reidy et al. in view of US Pat. No. 5,985,191 to Clarke.

Reidy et al. disclose the claimed invention except for the specific variation in mold temperature over different portions. Clarke discloses that it is known in the art to provide a mold with heating and cooling elements to control the degree of foaming in different sections of a foamed injection molded thermoplastic. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the mold of Reidy et al. with the cooling ducts of Clarke, in order to ensure the lesser density reduction in the airbag cover that Clarke discloses as necessary.

10. Claims 33 and 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reidy et al. in view of Clarke as applied to claim 29 above, and further in view of Oseroff et al.

Reidy et al. in view of Clarke teaches the claimed invention except for the thermoplastic elastomer including another elastomer, or comprising a mixture of EPM, EPDM, and PP. Oseroff et al. disclose that it is known in the art to provide a steering wheel with a foamed padding material comprising thermoplastic elastomer of polypropylene with another elastomer, namely EPM and EPDM. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the polypropylene elastomer mixture of Reidy et al. with the EPM, EPDM, and PP blend of Oseroff et al., as Reidy states, in column 4, lines 21-24, that other thermoplastic elastomers may be used, and Oseroff et al. teach that it is old in the art to use such a blend in a foamed steering wheel padding. The blend of Oseroff provides Shore A hardness of 35-50.

11. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reidy et al. in view of Clarke as applied to claim 35 above, and further in view of Braun et al.

Reidy et al. in view of Clarke teaches the claimed invention except for the foaming agent encapsulated within a resin that is essentially the same material as the thermoplastic elastomer. Braun et al. disclose that it is known in the art to provide a impregnated polyolefin granule containing a foaming agent. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the foaming agent of Reidy et al. within a capsule as taught by Braun et al., in order to avoid contamination of waste water, as disclosed by Braun et al. in column 1, lines 32-36.

Conclusion

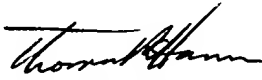
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art shows a variety of steering wheels with a foamed padding material adhered thereto, having different compositions, as well as a variety of methods of forming a foamed material in a mold with temperature variations across the mold.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Stefanon whose telephone number is 703-305-1945. The examiner can normally be reached on Monday - Friday 6 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Bucci can be reached on 703-308-3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

js
November 27, 2002


Thomas R. Hannon
Primary Examiner